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Subject: volume rendering: emphasizing material boundaries

Posted by [s\[1\]](#) on Mon, 16 Dec 2002 17:28:00 GMT

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Hi all,

I try to volume render a MRI brain data set like the one in the demo. I want the brain matter to be rendered very translucently (because I want to see the polygons I put inside the brain) but at the same time I want to emphasize surfaces and material boundaries.

At a surface, the gradient in the data set usually is very high. So I am looking for a way to tell IDL to prominently factor the gradient into the rendering equation. In VTK I can use a "gradient opacity" transfer function, which basically weights the opacities by the gradient, i.e. even highly opaque voxels are rendered very transparently if their gradient is low.

Is there a build-in way to achieve this effect in IDL?

I thought about using the lights for this (spot light with high focus), but that doesn't do the trick.

Thanks for all tips,

Sebastian

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